

## Abstract

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A control device for motor generator is provided in which different field current limit values are set in a low rotation speed zone and a high rotation speed zone in power generation, thereby enabling improvement in the degree of freedom in design, and in which continuous operation can be safely carried out since  $I_{fg}$  in power generation at high temperature is made smaller than  $I_{fm}$  in electric driving. In the control device for motor generator in which an engine is started and power generation is performed while a vehicle is running, a field current limit value  $I_{fm}$  in electric driving to start the engine is larger than a field current limit value  $I_{fg}$  in power generation. In the power generation, an inverter mode in a low rotation speed zone for boosting and an alternator mode in a high rotation speed zone for rectifying and outputting a generated voltage without boosting are provided. A field current limit value  $I_{fgi}$  in the inverter-mode power generation and a field current limit value  $I_{fga}$  in the alternator-mode power generation are set differently from each other, and the larger value is set as the value  $I_{fg}$ .